

Work

Quality & Inequality

How is work good or bad for your health?

Discuss the links in a small group.

Work is good for your health.

Obvious financial benefits, but also Jahoda's five latent functions of employment:

- **Time structure.**
- **Regular opportunity for shared experiences and contacts with people outside nuclear family.**
- **Links with collective goals and purposes outside their own.**
- **Defines status and identity.**
- **Enforces activity.**

Unemployment and inflammation

Table 3 Associations of current unemployment with inflammatory markers: whole-sample analysis

Adjustment level	CRP (mg/L, log-transformed) N=23 025			Fibrinogen (g/L, log-transformed) N=20 724			CRP>3 mg/L N=23 025		
	Coefficient	CI	p Value	Coefficient	CI	p Value	OR	CI	p Value
Age, gender, country, year, socioeconomic position, long-term illness, health behaviours and GHQ-12									
In paid employment	Ref.								
Unemployed	0.14	0.06 to 0.23	0.001	0.02	0.00 to 0.04	0.02	1.43	1.15 to 1.78	0.001
Sick/disabled	0.18	0.11 to 0.25	<0.001	0.03	0.01 to 0.04	0.002	1.54	1.31 to 1.82	<0.001
Other economically inactive	0.05	0.01 to 0.08	0.01	0.01	0.00 to 0.02	0.003	1.20	1.10 to 1.30	<0.001

CRP, C reactive protein; GHQ-12, General Health Questionnaire.

Hughes A, et al. *J Epidemiol Community Health* 2015;**69**:673–679. doi:10.1136/jech-2014-204404

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Table 4 Fully adjusted* associations of current unemployment with inflammatory markers in whole sample, stratified by age group

Age band	Coefficient/OR	CI	p Value	N (unemployed)	N (total)
16–31					
Log CRP	0.10	–0.06 to 0.26	0.21	188	4621
Log fibrinogen	0.01	–0.02 to 0.05	0.39	177	4411
CRP, dichotomised	1.29	0.86 to 1.95	0.22	188	4621
32–47					
Log CRP	0.07	–0.07 to 0.21	0.34	171	9309
Log fibrinogen	0.00	–0.03 to 0.03	0.99	165	8747
CRP, dichotomised	1.35	0.91 to 2.00	0.14	171	9309
48–64					
Log CRP	0.28	0.13 to 0.42	<0.001	146	9095
Log fibrinogen	0.07	0.04 to 0.10	<0.001	120	7566
CRP, dichotomised	1.57	1.08 to 2.27	0.02	146	9095

The bold text signifies associations in the stratified analyses which are significant at p<0.05.

*Adjusted for age in years, gender, country, survey year, occupational social class, housing tenure, presence of a long-term illness, smoking, alcohol consumption, categorised BMI and dichotomised GHQ-12.

BMI, body mass index; CRP, C reactive protein; GHQ-12, General Health Questionnaire.

Return to work is associated with an improvement in health...

Review of 53 longitudinal studies

There is strong evidence that re-employment:

- Improves physical & general health and well-being
- Improves mental health
- Magnitude of improvement comparable to the harmful effects of losing a job.

However:

- That depends on the quality and security of re-employment

IS WORK GOOD
FOR YOUR HEALTH AND
WELL-BEING?

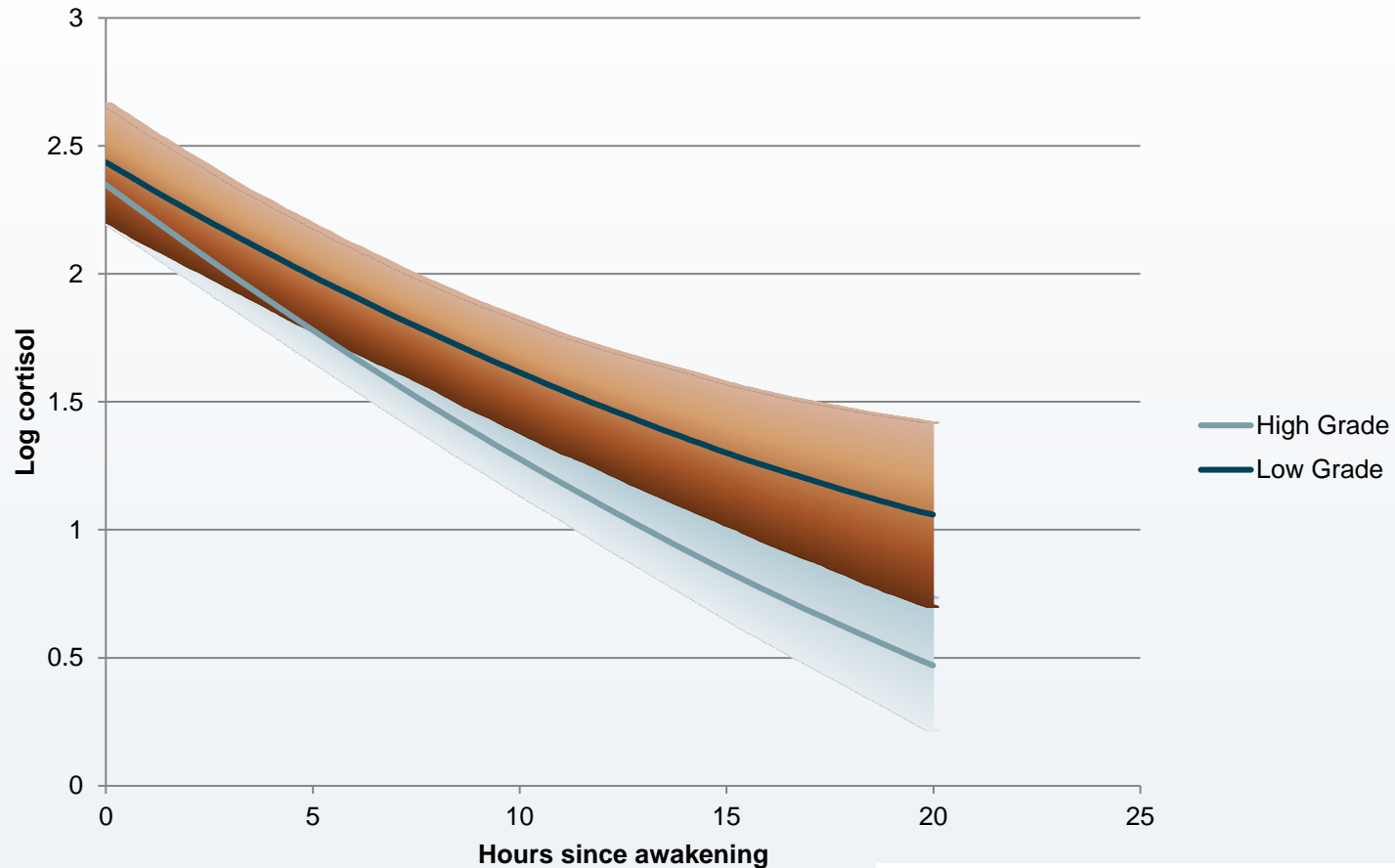
Gordon Waddell, A Kim Burton

**Remember UK measure of social class –
NS-SEC – is a measure of employment
relations & conditions.**

**Enormous body of evidence showing class
inequalities in health and premature
mortality.**

**To what extent are these explained by
differences in job quality?**

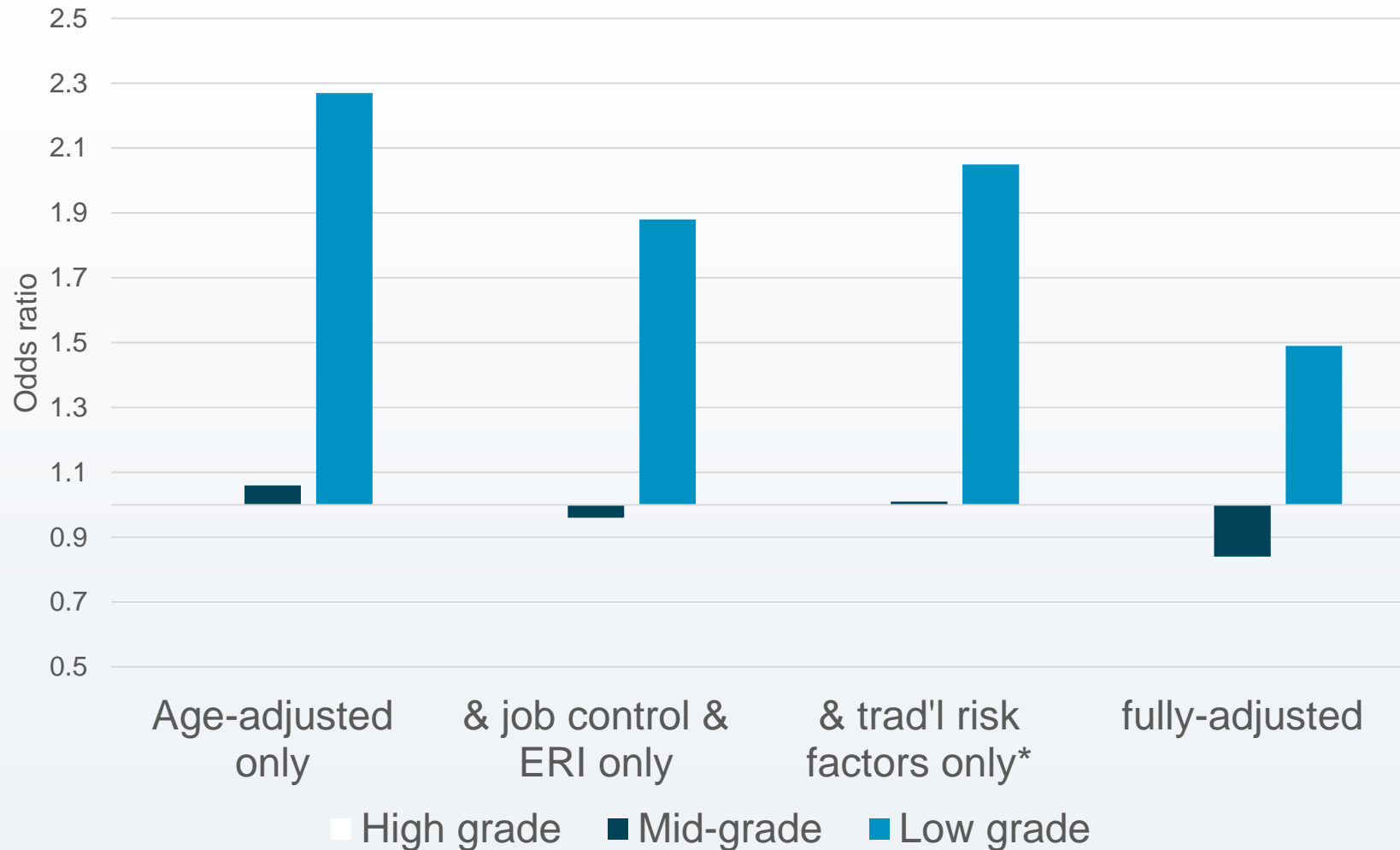
Predicted (log) diurnal cortisol slopes by employment grade in Whitehall II study of civil servants



Retirement and Socioeconomic Differences in Diurnal Cortisol: Longitudinal Evidence From a Cohort of British Civil Servants

Tarani Chandola,¹ Patrick Rouxel,² Michael G. Marmot,³ and Meena Kumari⁴

Likelihood of diagnosed Heart Disease by job grade Whitehall II



*Smoking, cholesterol, BMI, BP, physical activity

Source: Marmot *et al.* *The Lancet* 1997

Models of job quality / work stressors

- Demand control model
- Effort Reward Imbalance model
- Security
- Flexibility
- Hours (long)
- Low pay

Karasek & Theorell's Demand-Control Model

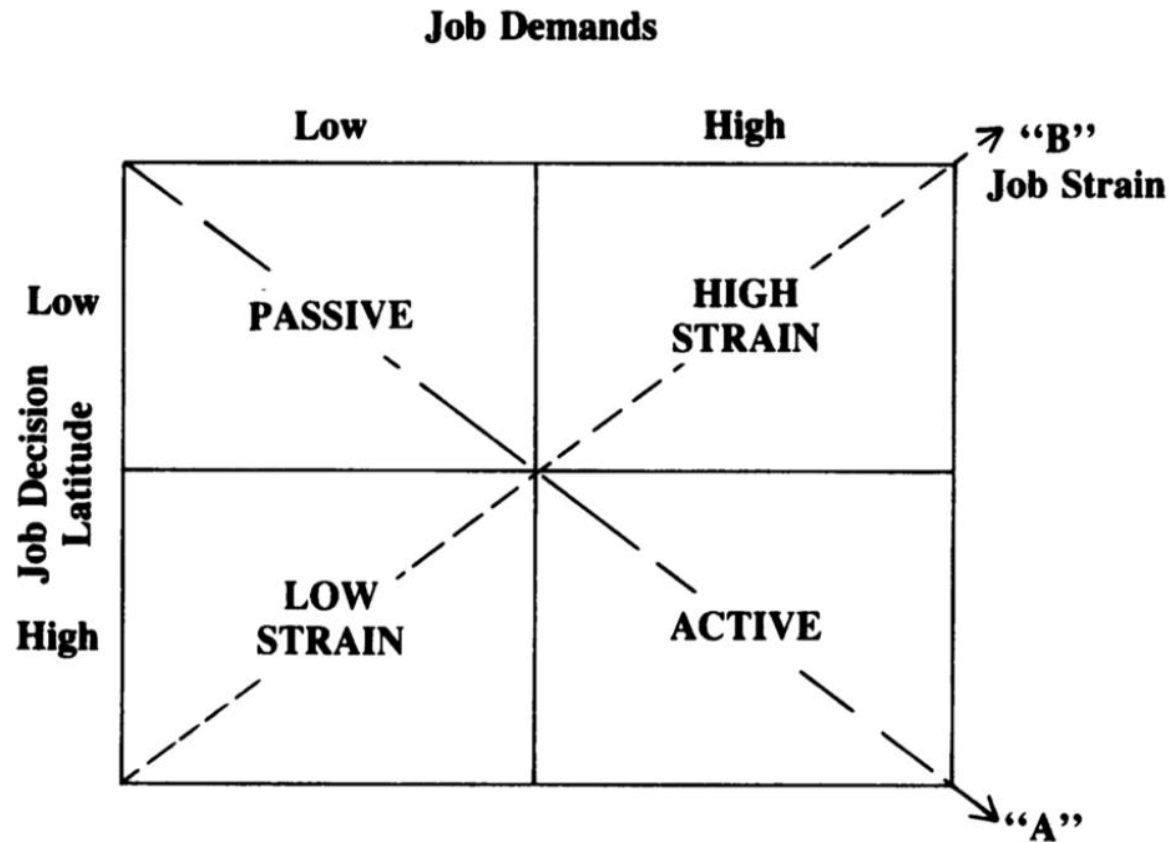
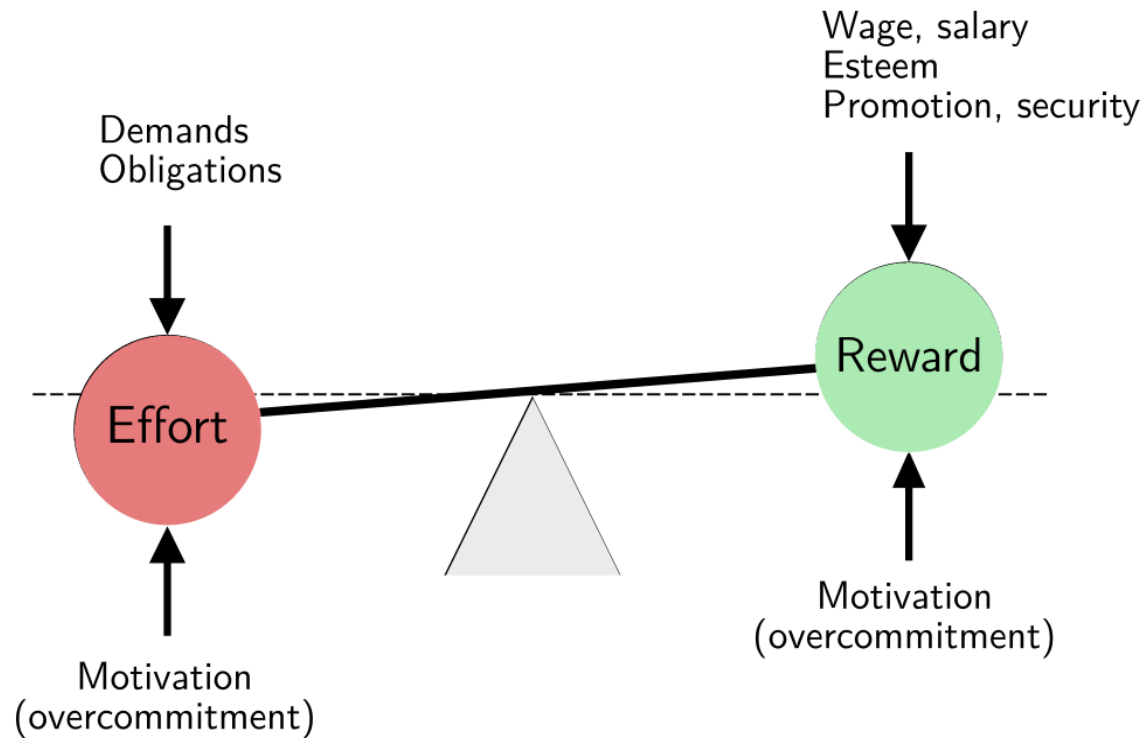


FIGURE 1—Job Strain Model

Siegrist's Effort-Reward Imbalance Model



- Imbalance is maintained if (i) no alternative choices available; (ii) accepted for strategic reasons; (iii) motivational pattern presents (i.e. over commitment).

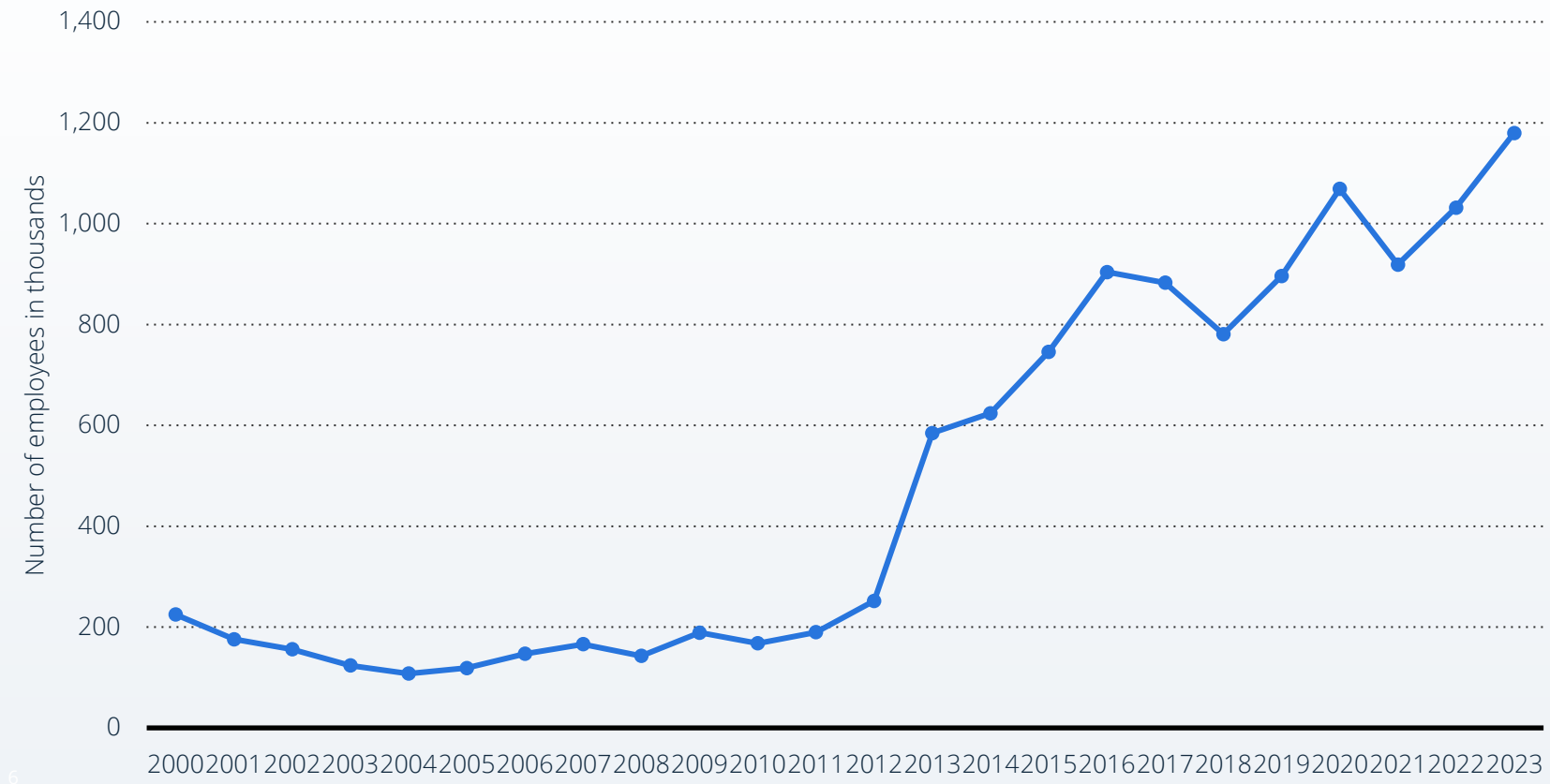
Source: <http://www.uniklinik-duesseldorf.de>

Since 2008 recession, increased employer flexibility has been part of a story of increased inequality in the US & UK: Hour glass economy

- Labour market is polarised into "lovely" and "lousy" occupations
- High wage, high skilled non-routine work at the top
- Low wage, low-skilled jobs at the bottom.
- Skilled- and semi-skilled manual jobs are hollowed out.



Number of employees on a zero-hours contract in the United Kingdom from 2000 to 2023 (in 1,000s)



Note(s): United Kingdom; 2000 to 2023; 16 years and older
 Further information regarding this statistic can be found on [page 8](#).
Source(s): Office for National Statistics (UK); [ID 414896](#)

Good work matters....



Research Briefing

By Tony Dobbins

6 June 2022

**Good work: policy and research
on the quality of work in the UK**

Taylor Review of Modern Working Practices

“Bad work – insecure, exploitative, controlling – is bad for health and wellbeing”

But also,

“The worst work status for health is unemployment”

Is this true?

Research Questions

Is return to work into poor quality work associated with an improvement in health and well-being, particularly the biomarkers associated with stress, compared to remaining unemployed, in a cohort of British unemployed adults?

Are bad jobs better than no job?

**Re-employment, job quality, health and
allostatic load biomarkers: prospective evidence
from the UK Household Longitudinal Study**

Tarani Chandola* and Nan Zhang

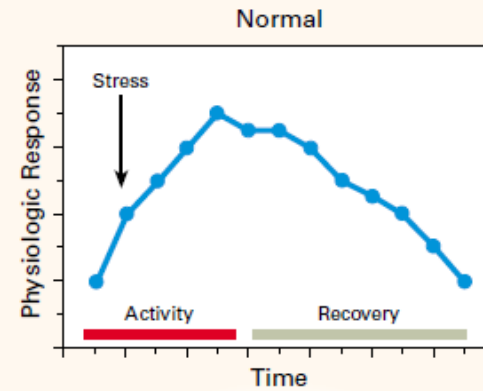
Measures of low job quality in UKHLS

- Earnings quality ('low pay')
- Labour market security ('job insecurity')
- Quality of the working environment ('low job control', 'job dissatisfaction' and 'job anxiety')

Employment status by job quality (4 categories)

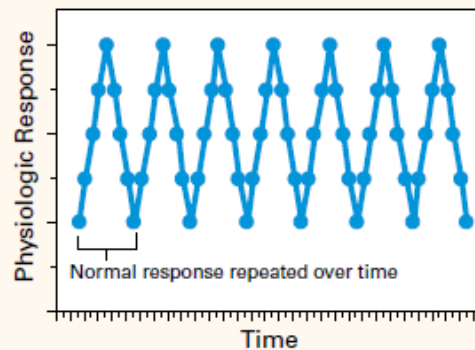
- Remained unemployed after 1 or 2 years
- Was re-employed in good quality work
- Was re-employed in work with at least one adverse job quality measure
- Was re-employed in work with two or more adverse job quality measures

Three types of allostatic load

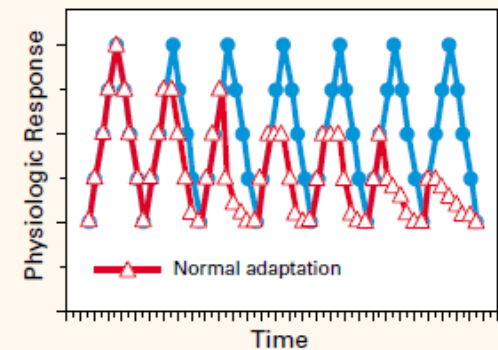


Allostatic load

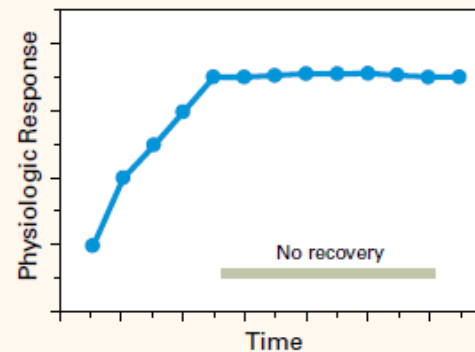
Repeated "hits"



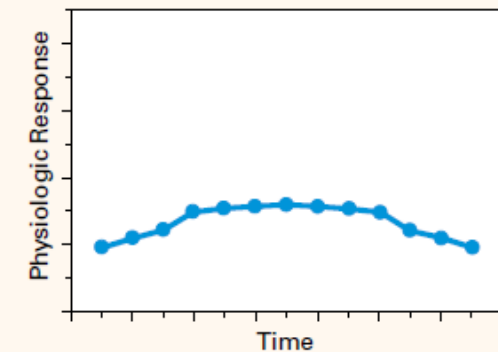
Lack of adaptation



Prolonged response



Inadequate response



PROTECTIVE AND DAMAGING EFFECTS
OF STRESS MEDIATORS

BRUCE S. McEWEN, PH.D.

The New England Journal of Medicine

Allostatic load biomarkers in UKHLS

Biological systems

Neuroendocrine

Immune

Metabolic

Cardio

Anthropometric

Measures for each system

DHEA-S
IGF-1

CRP
Fibrinogen

Triglycerides
Chol/HDL
Creatine
HbA1c

SBP
DBP
Pulse rate

Waist/Height ratio

Allostatic load was constructed by first dichotomizing each of the **11 biomarkers** based on respondents in the **highest sex-specific quartile of risk** ('1') versus the remaining quartile ('0')

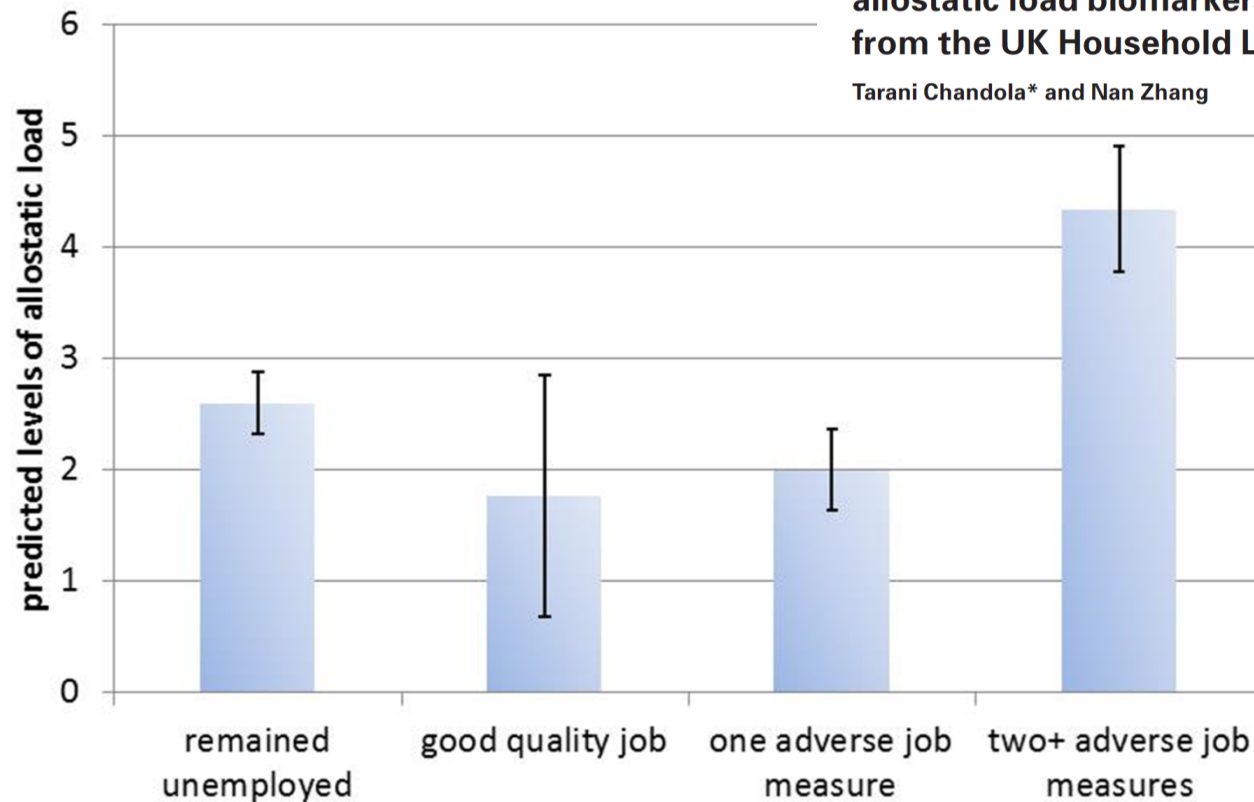
Except for DHEAS and creatine clearance rate for which the **lowest quartile** indicated higher risk

These binary measures were then summed to create the overall allostatic load score (ranging from 0 to 10)

Job quality and estimated levels of allostatic load

Re-employment, job quality, health and
allostatic load biomarkers: prospective evidence
from the UK Household Longitudinal Study

Tarani Chandola* and Nan Zhang



Formerly unemployed adults who were subsequently employed in poor quality jobs had higher levels of allostatic load than those who remained unemployed

Low wage jobs can act as springboards to better paid work

Low-Wage Jobs – Springboard to High-Paid Ones?

Andreas Knabe (Otto-von-Guericke University Magdeburg and CESifo)

Alexander Plum (Otto-von-Guericke University Magdeburg)¹

SOEP 

SOEPpapers
on Multidisciplinary Panel Data Research

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Andreas Knabe • Alexander Plum

Low-Wage Jobs –
Stepping Stone or Poverty Trap?

Berlin, November 2010

Abstract We examine whether low-paid jobs have an effect on the probability that unemployed persons obtain better-paid jobs in the future (springboard effect). We make use of data from the German Socio-Economic Panel (SOEP) and apply a dynamic random-effects probit model. Our results suggest that low-wage jobs can act as springboards to better-paid work. The improvement of the chance to obtain a high-wage job by accepting low-paid work is particularly large for less-skilled persons and for individuals with longer periods of unemployment. Low-paid work is less beneficial if the job is associated with a low social status.

We've mentioned increased employer flexibility...

Negative correlations with health (Flexibility for employers):

- Fragmented/Portfolio careers
- Multiple jobs
- Job insecurity

But flexibility can work two ways

Positive correlations with health (Flexibility for workers):

- Own account/Self-employed workers
- Flexible work arrangements

Flexible Working Arrangements in UKHLS

Reduced hours:

Part-time working

Working term-time only

Job sharing

Variable hours:

Flexi-time

To work annualised hours

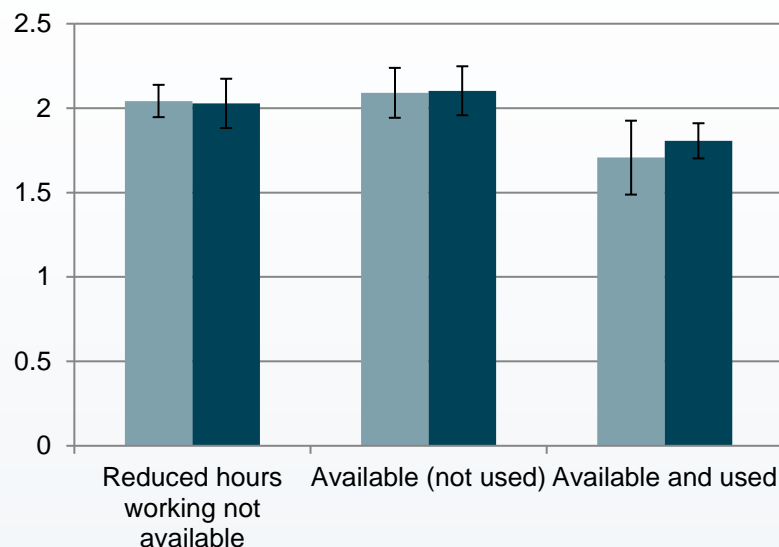
Working a compressed week

Other flexible working arrangements:

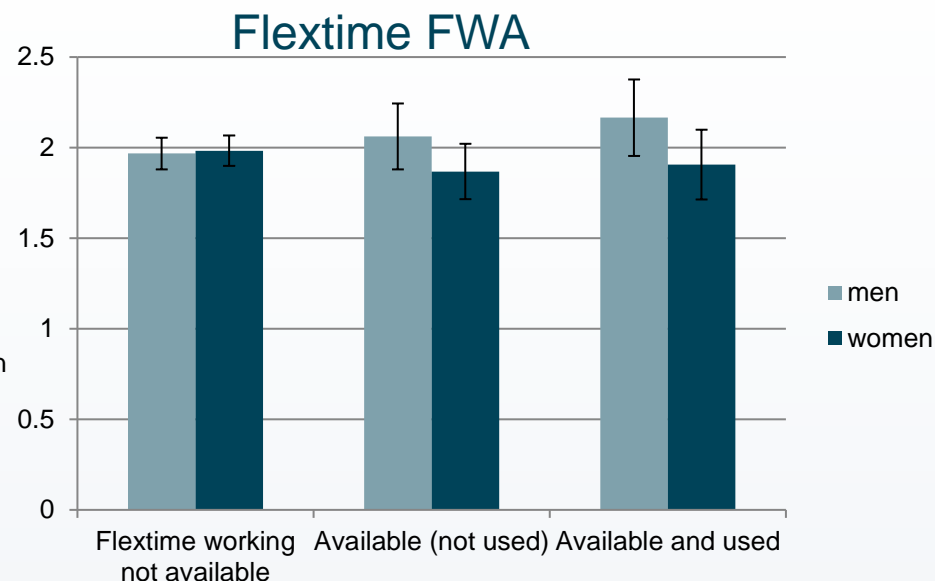
To work from home on a regular basis

Other flexible working arrangements

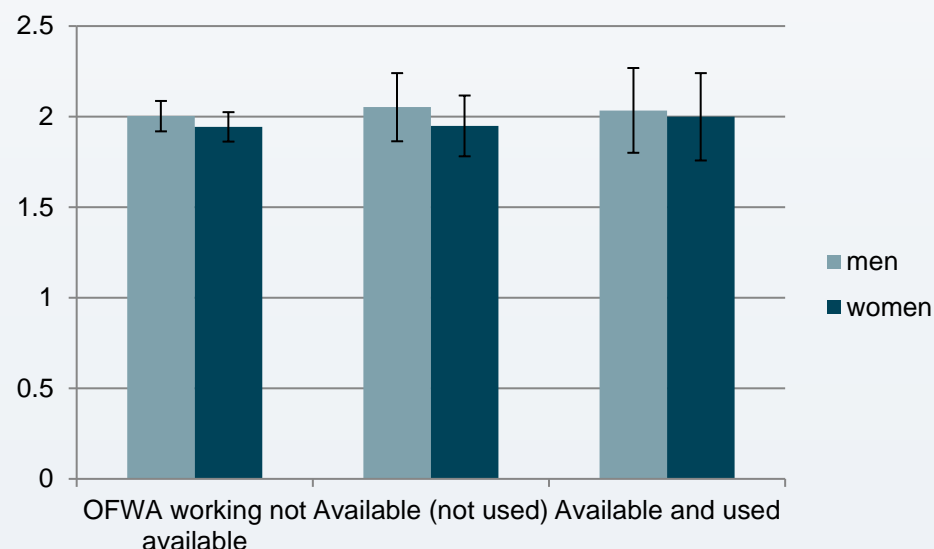
Levels of allostatic load by flexible work arrangements, UKHLS



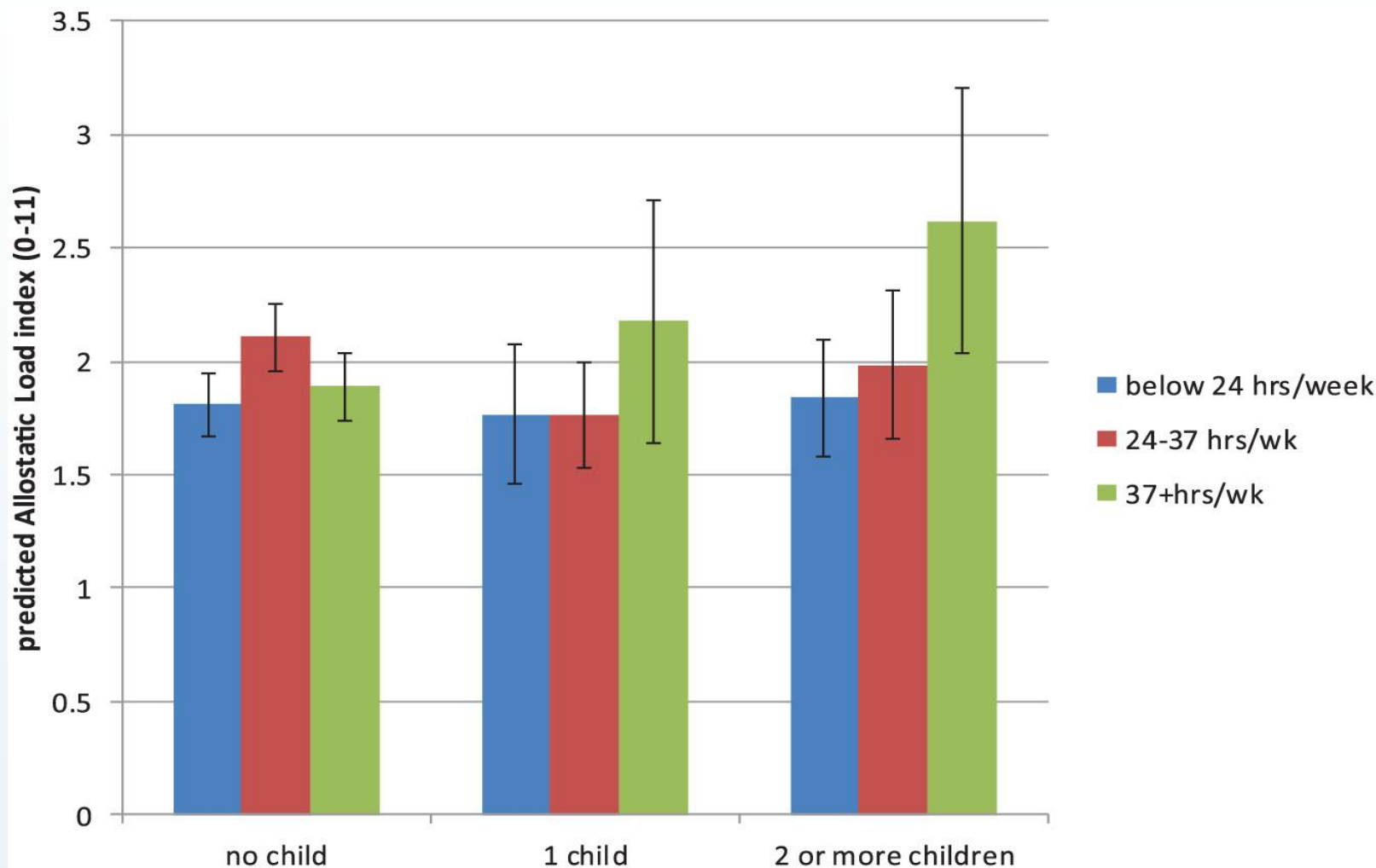
Reduced hours FWA



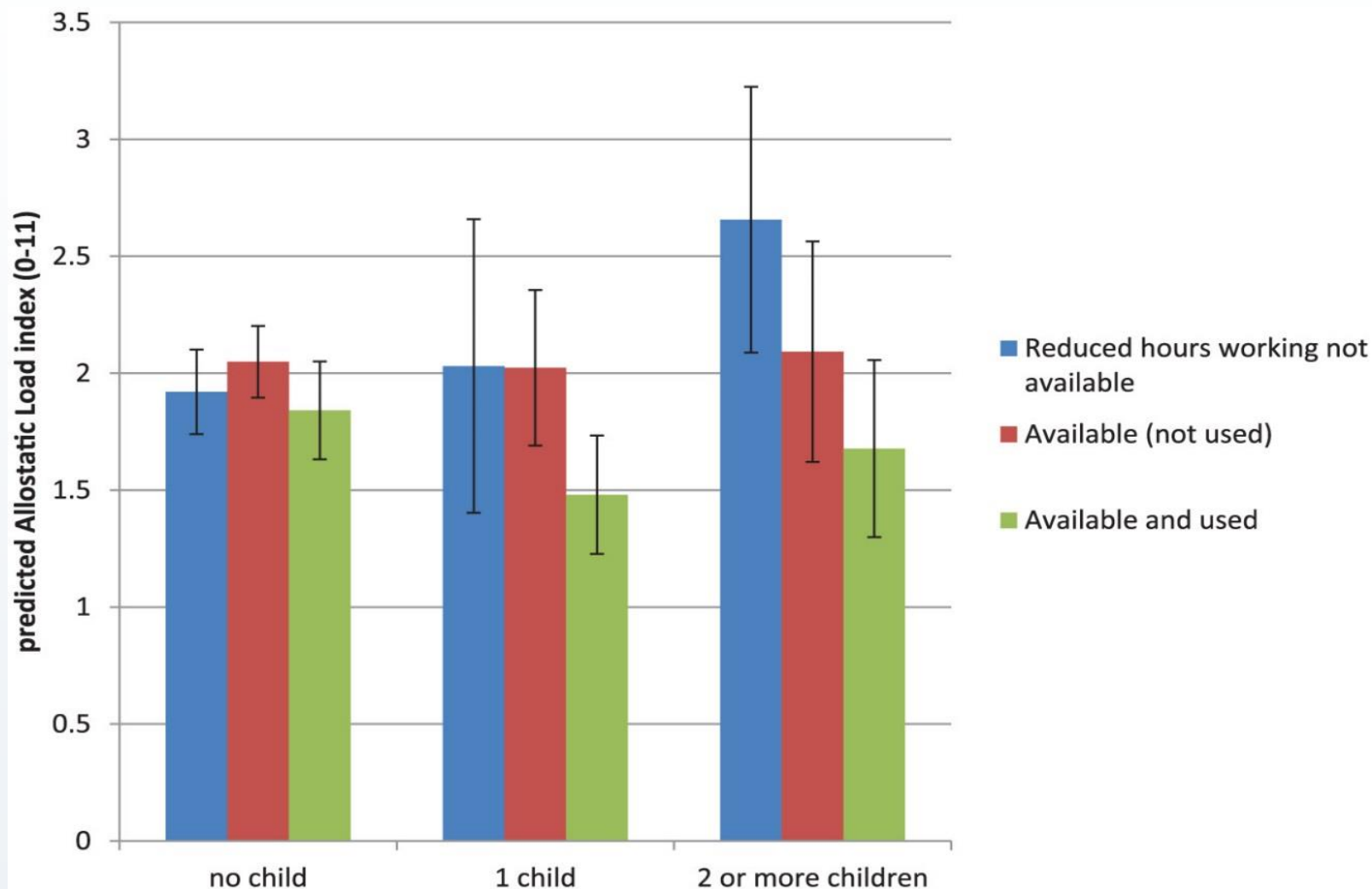
Other FWA



Levels of allostatic load by work hours and number of children, women employees, UKHLS



Levels of allostatic load by flexitime work and number of children, women employees, UKHLS



Post-covid changes to ways of working.. Increasing flexibility? Remote, hybrid, 'digital nomad' working?

All UK employees had the right to request Flexible Working Arrangements (FWA) after six months. Government now moving this forward to the start of employment.

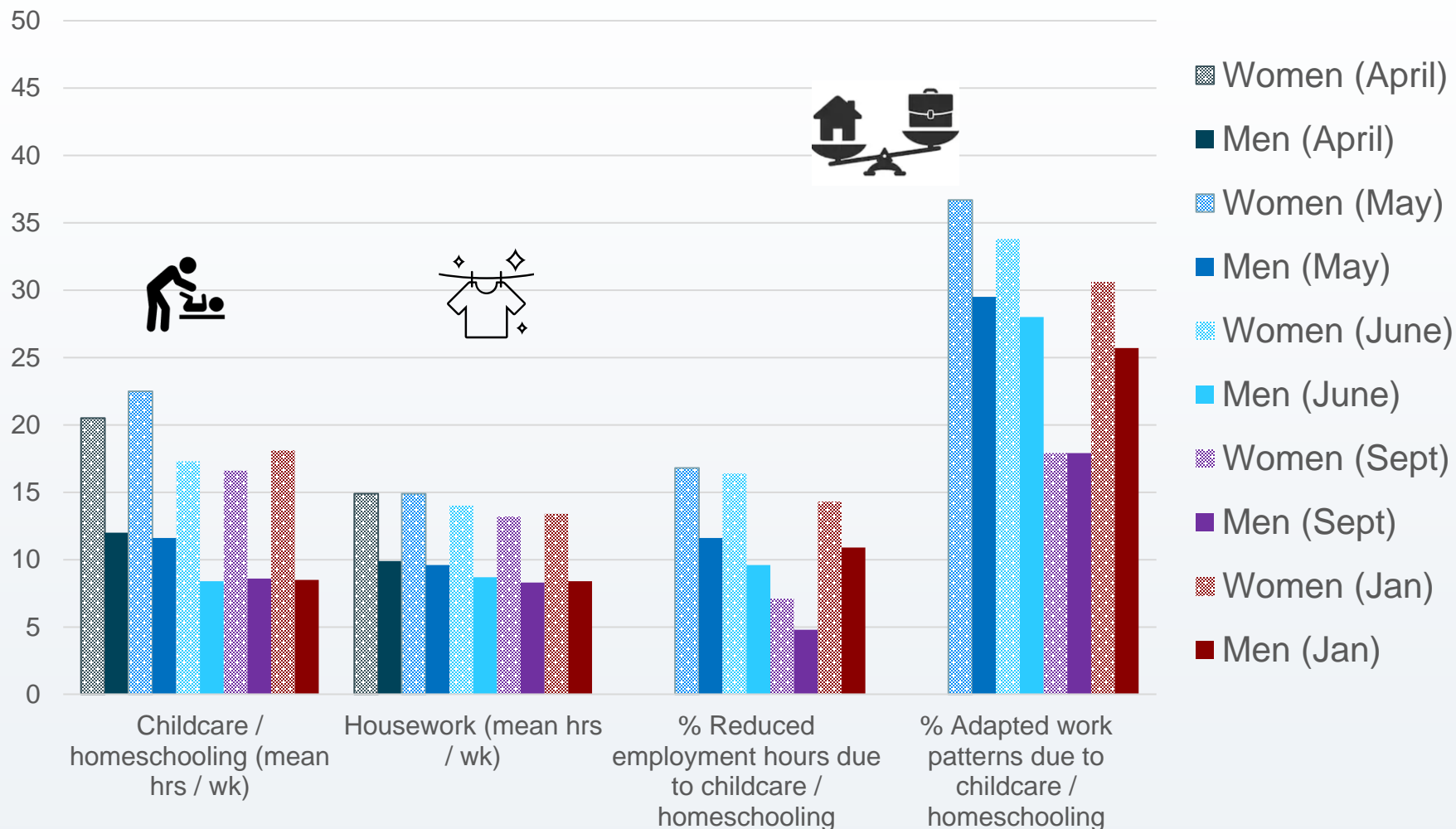
Designed to support women, those with disability, parents and carers.

Will this further entrench gender inequalities in unpaid care work? Will higher levels of home working increase current gender gap in occupational attainment?

Glucksmann's 'Total Social Organisation of Labour'

FORMAL		PAID	
1. Formal paid job in public, private or voluntary sector e.g. formal job in voluntary organization	2. Informal employment e.g. wholly undeclared waged employment; under-declared formal employment (e.g. undeclared overtime); informal self-employment	3. Paid community exchanges e.g. paid favours for friends, neighbours and acquaintances	4. Paid household/family work e.g. paid exchanges within the family
UNPAID		INFORMAL	
e.g. unpaid work in formal community-based group; unpaid internship 5. Formal unpaid work in public, private and voluntary sector	e.g. unpaid children's soccer coach without formal police check 6. Informal unpaid work in public, private and voluntary sector	e.g. unpaid kinship exchange, neighbourly favour 7. One-to-one unpaid community exchanges	e.g. self-provisioning of care within household 8. Unpaid domestic work

Gender differences in unpaid care work during lockdown, UKHLS



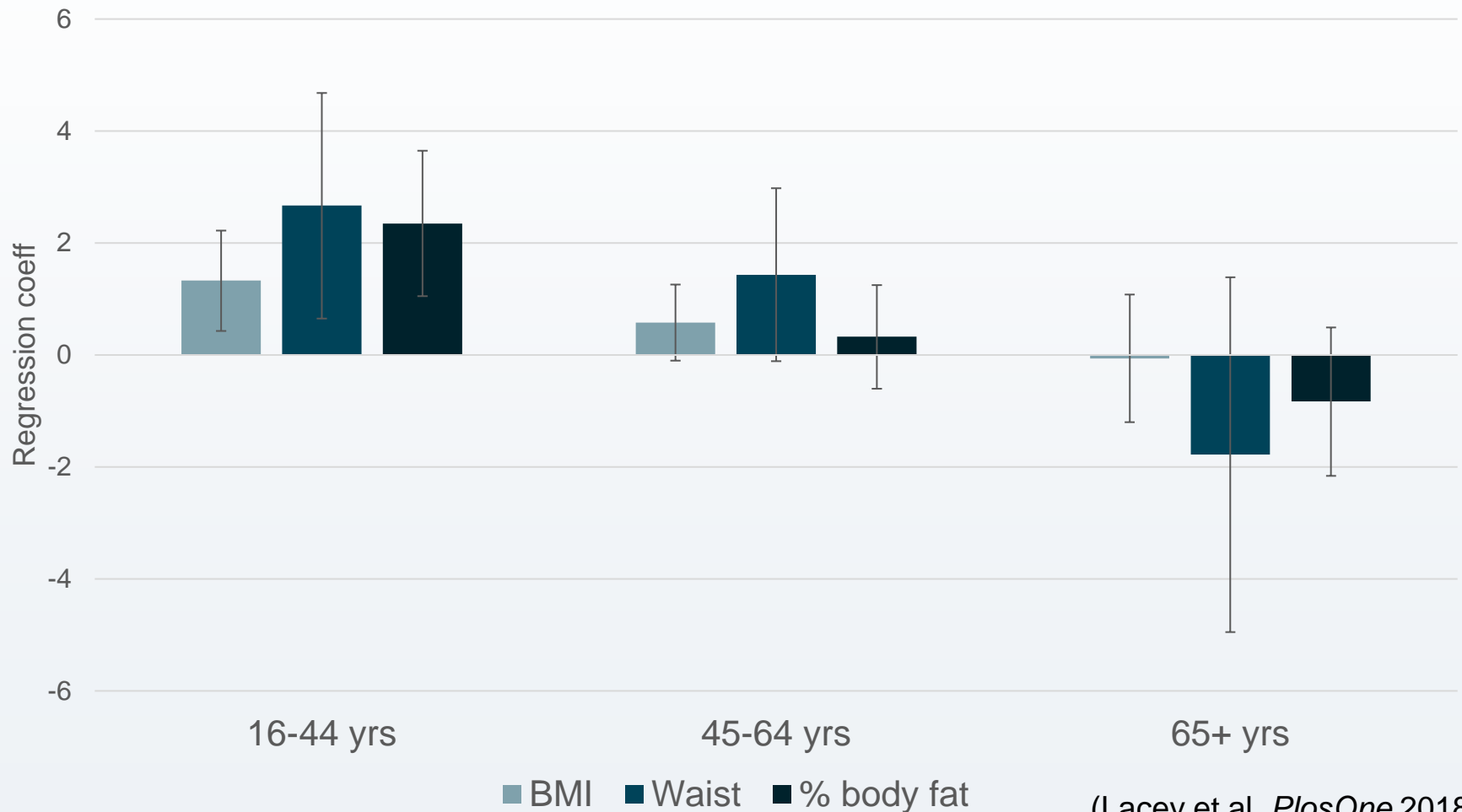
Unpaid care work and its impact on employment as a social determinant of health and wellbeing.

Spending long periods of time out of the labour market to look after the home is linked with worse health in mid- and later life for women.

- Mental health (Lacey et al. *JPA* 2015)
- BMI (Lacey et al. *IJO* 2017, McMunn et al. *JECH* 2006, Hedel et al. *AJPH* 2016)
- Inflammation (Lacey et al. *IJE* 2015)
- Metabolic markers (McMunn et al. *JECH* 2016, Lacey et al. *PlosOne* 2016)

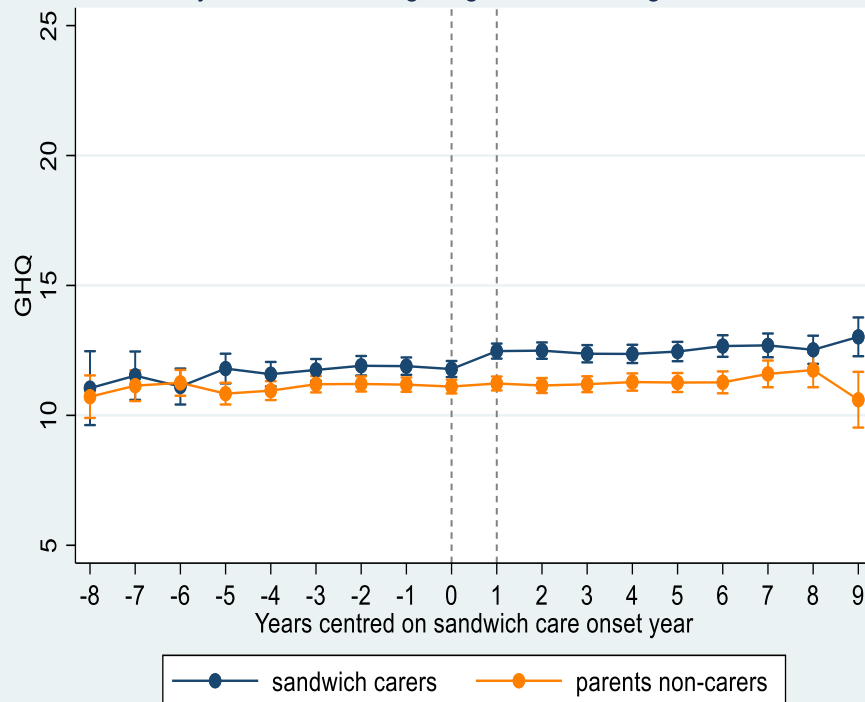
Similar study on US data found same true in relation to mortality
(Sabbath et al. *AJPH* 2015)

We have shown providing care to adults is linked with poor health for young women (<45 years) in particular: mental health (Lacey et al. *Psych Med* 2019), adiposity (Lacey et al. *PlosOne* 2018)

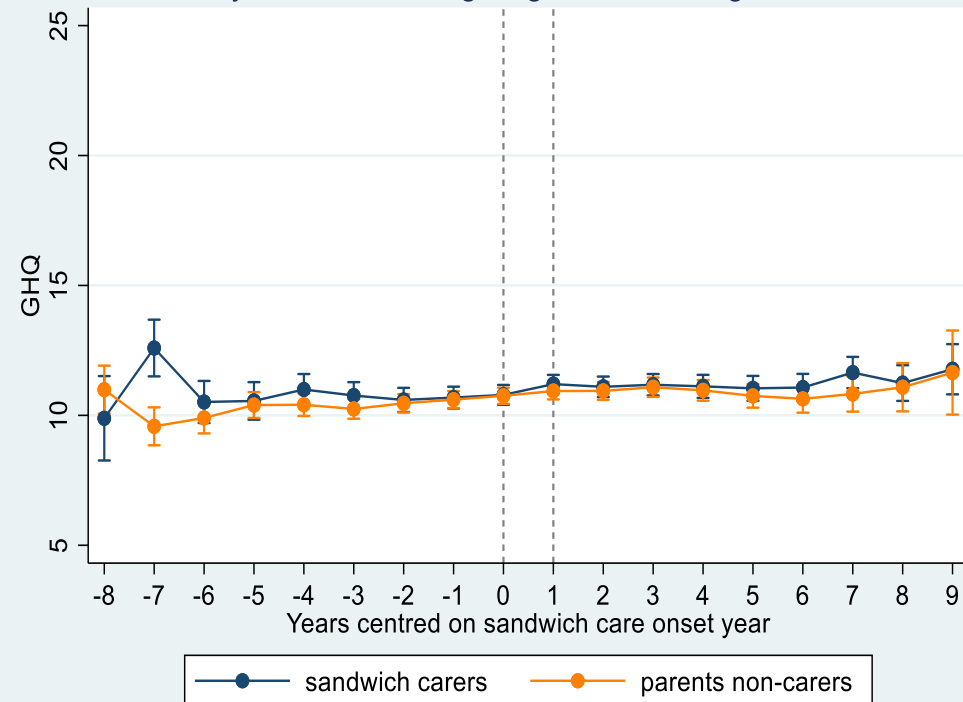


Psychological distress trajectories before and after transition to adult care amongst parents, UKHLS

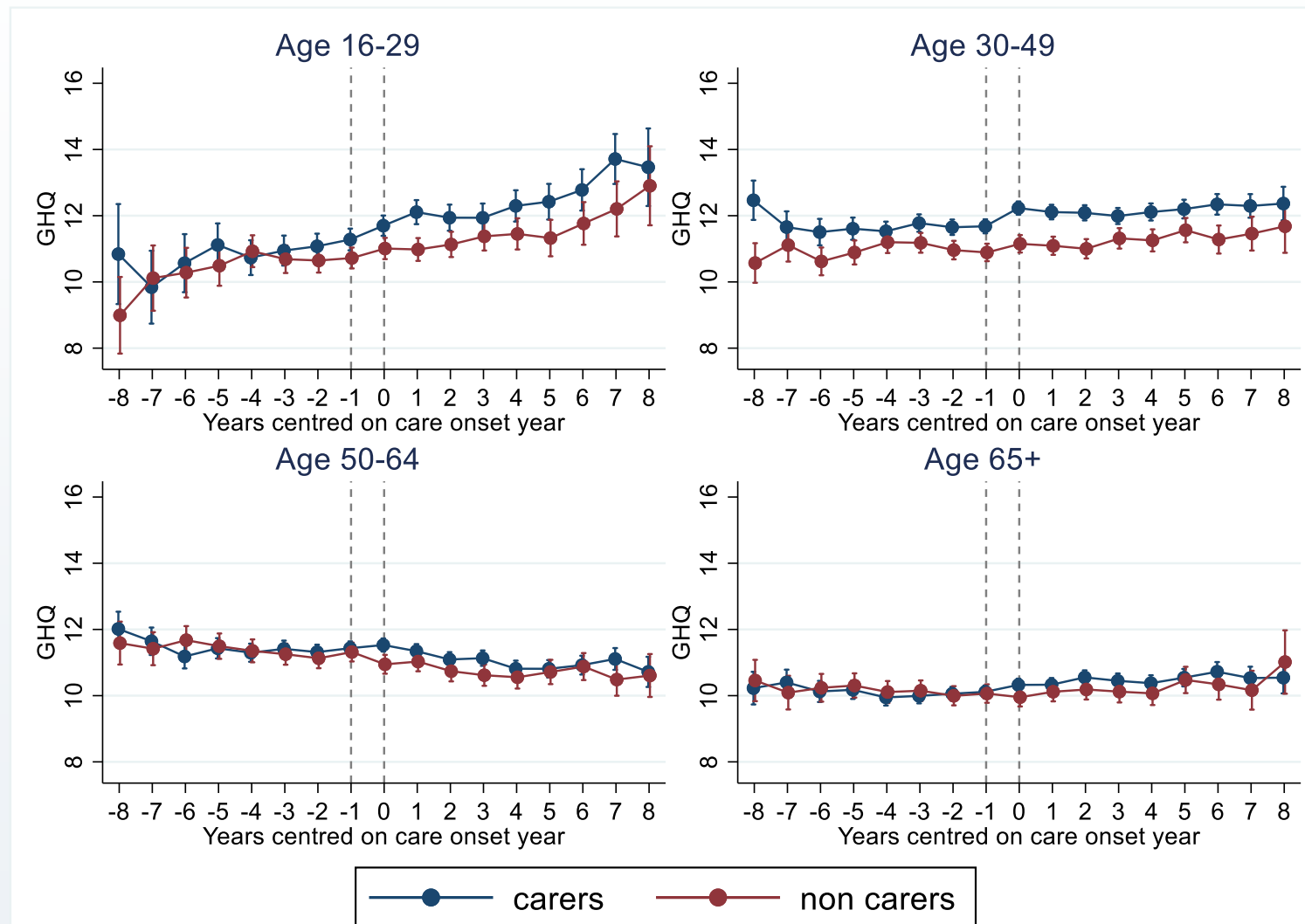
GHQ by sandwich caregiving status among mothers



GHQ by sandwich caregiving status among fathers



Psychological distress trajectories before and after transition to adult care by age group, UKHLS



(Lacey et al. *Lancet Public Health* 2023)

Summary

Work is an important determinant of health but job quality is also important.

Aspects of job quality have been shown to be associated with stress biomarkers and are likely to play an important role in health inequalities.

Mothers with weaker ties to employment end up less healthy, both physically and mentally, in mid- and later-life than mothers who have spent longer periods in employment...

Transitions to unpaid care are associated with psychological distress amongst women, younger adults and those caring intensively..

...suggesting gender equality in access to employment is also important for public health.